

Work Order ID 76198-1

76198

Page 1

November-07-11 2:35:31 PM

Item ID: D3137-043

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Bracket Assembly

Start Date: 07/11/2011 Start Qty: 10.00

10

Cust Item ID:

Required Date: 21/11/2011 Req'd Qty: 10.00

10

Customer:

Reference:

Approvals: Process Plan: M.C.J.

Date: 11/11/08

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D3137	Rev F

100 0.00

100

BAND SAW

Bandsaw

Memo

Jespas Bandsaw

Cut blanks: (.500" x 2.000") 5.570" long

110 0.00

110

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

HAAS CNC vertical machine #1

1-Machine D3137-7 as per Folio FA3308 and Dwg D3137 Identify as D3137-72-Deburr3-Scribe batch number

120 0.00

120

QC2- Inspect parts off machine FAL/FAIB

QC

Memo

Quality Control

0.00

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 76198

76198

Page 2

November-07-11 2:35:31 PM

Item ID: D3137-043 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bracket Assembly
 Start Date: 07/11/2011 Start Qty: 10.00 ***10*** Cust Item ID:
 Required Date: 21/11/2011 Req'd Qty: 10.00 ***10*** Customer:

Reference:
 Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 <i>2</i> 0.00	<i>12-01-17</i>						
140 *140* Small Fab Small Fab	Small Fab Memo Assemble D3137-043 as per Dwg D3137	0.00 0.00							
150 *150* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.00	<i>12-01-20</i>						

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 76198

76198

Page 3

November-07-11 2:35:31 PM

Item ID: D3137-043 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Bracket Assembly
 Start Date: 07/11/2011 Start Qty: 10.00 ***10*** Cust Item ID:
 Required Date: 21/11/2011 Req'd Qty: 10.00 ***10*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: _____	0.00							
160									
Packaging	Memo	0.00							
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.00							
Quality Control									

12/1/2011
12-01-20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

November-07-11 2:35:35 PM

Page 1

Work Order ID: 76198

76198

Parent Item: D3137-043

D3137-043

Parent Item Name: Bracket Assembly

Start Date: 07/11/2011

Required Date: 21/11/2011

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP Rev:A04.02.18New issueKJ/DS
IPP Rev B 08.07.03 ECN1207 EC verified by DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

MS24694-S101

Purchased

No

100

Each

15.0000

1

10

MS24694-S101

Screw

**

Location

Loc Qty

Loc Code

ST289A

15

110363

5

118159

10

D3137-3

Manufactured

No

140

Each

0.0000

1

10

D3137-3

Guide

**

mtf 12-0-20

D3137-5

Manufactured

No

140

Each

8.0000

1

10

D3137-5

Washer

**

39628 mtf 12-01-20

Location

Loc Qty

Loc Code

ST235B

8

46740

4

68262

4

M174B0.500X02.000

Purchased

No

140

f

49.7651

0.4643

4.887368

M174B0 500X02 000

17-4 SS Bar .500 x 2.00

**

mtf 12-01-20

Location

Loc Qty

Loc Code

MAT050

49.7651

100843

12.9

103089

13

14932

18.9051

19572

4.96

4.888 mtf 12/01/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

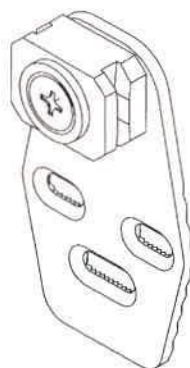
DART AEROSPACE LTD		Work Order:	7498
Description: Bracket		Part Number:	D3137-7
Inspection Dwg: D3137 Rev: F		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

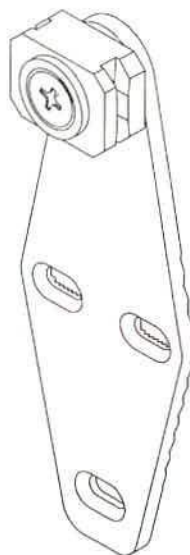
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
Ø0.560	+0.006/-0.001	.562	/			
5.29	+/-0.030	5.290	/			
2.79	+/-0.030	2.76	/			
0.67	+/-0.030	.67	/			
1.90	+/-0.030	1.888	/			
0.262	+/-0.010	.263	/			
0.062	+/-0.010	.065	/			
4.850	+/-0.010	4.850	/			
0.162	+/-0.010	.160	/			
Ø0.500	+0.006/-0.001					
2.360	+/-0.010	2.361	/			
1.880	+/-0.010	1.878	/			
0.480	+/-0.010	.481	/			

Measured by:	22	Audited by:	2	Preliminary Approval:	N/A
Date:	12-1-16	Date:	12-01-17	Date:	N/A

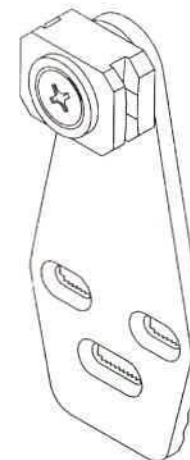
Rev	Date	Change	Revised by	Approved
A	03.11.12	New Issue P/O D3137-043	KJ/RF	
B	04.06.15	Changed & added dimensions	KJ/JLM	
C	06.03.15	Dwg Rev updated	KJ/JLM	
D	08.12.02	Dwg Rev updated	KJ/DD	
E	10.08.03	Dimension 5.29 was 0.529	KJ	



D3137-041 BRACKET ASSEMBLY



D3137-043 BRACKET ASSEMBLY



D3137-045 BRACKET ASSEMBLY

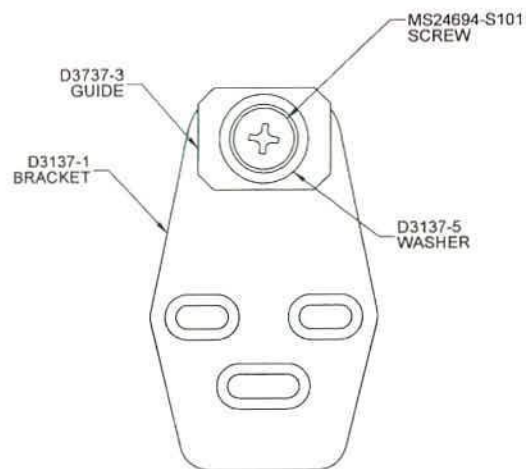
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08-06-2007

SHOP COPY
RETURNED
ENGINEERING
UNCONTROLLED
SUBJECT TO APPROVAL
WITHOUT NOTICE
WORK ORDER
NO 76198

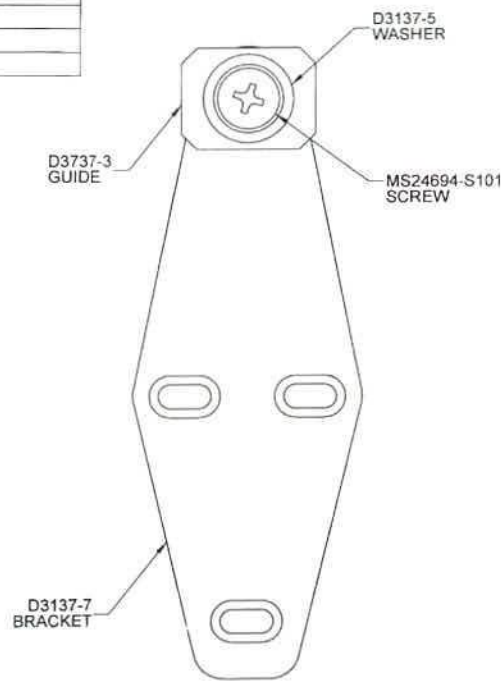
08-11-08

F	REDRAWN & REFORMATTED IN SOLIDWORKS. SHEET 3 ZONE A 5 DIM 2.36 WAS 2.46, ZONE A 4 0.480 DIM WAS 0.505, ZONE A 3 0.87 DIM WAS 0.79, ZONE B 5 4.850 DIM WAS 4.975 & ZONE B 6 5.29 DIM WAS 5.41. REASON: PART TRIMMED DUE TO INTERFERENCE WITH EXECUTIVE INTERIOR.	AJS	08.05.30
E	ADD -045	RF	05.11.23
D	RE-DESIGN D3137-5; CHANGE DIMS	DS	04.11.03
C	ADD -043	DS	03.08.15
B	ADD RIDGES; ADD MATERIAL PROP	DS	03.01.16
A	NEW ISSUE	DS	02.04.17
REV.	DESCRIPTION	BY	DATE
DESIGN	DS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D3137	SHEET 1 OF 5
APPROVED		TITLE	SCALE
DE APPR.		BRACKET ASSEMBLY	NTS
DATE	08.05.30	<small>COPYRIGHT © 2002 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESSED CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR DISSEMINATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

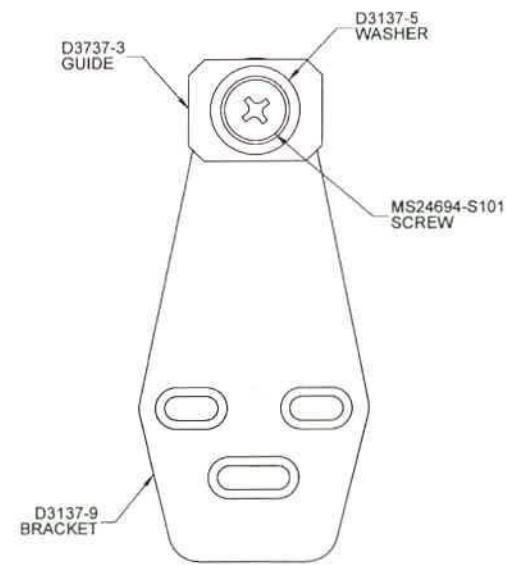
QTY. -041	QTY. -043	QTY. -045	PART NUMBER	DESCRIPTION
X			D3137-041	BRACKET ASSEMBLY
	X		D3137-043	BRACKET ASSEMBLY
		X	D3137-045	BRACKET ASSEMBLY
1			D3137-1	BRACKET
1	1	1	D3137-3	GUIDE
1	1	1	D3137-5	WASHER
	1		D3137-7	BRACKET
		1	D3137-9	BRACKET
1	1	1	MS24694-S101	SCREW



D3137-041 BRACKET ASSEMBLY



D3137-043 BRACKET ASSEMBLY



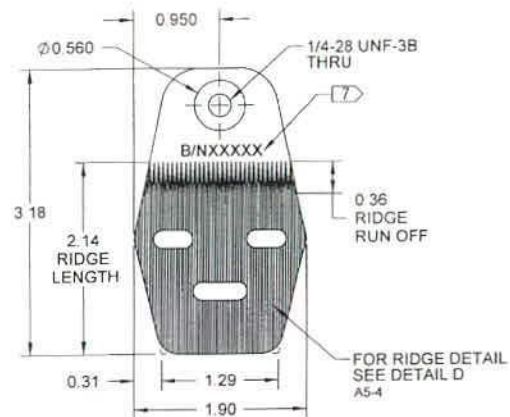
D3137-045 BRACKET ASSEMBLY

NOTES:

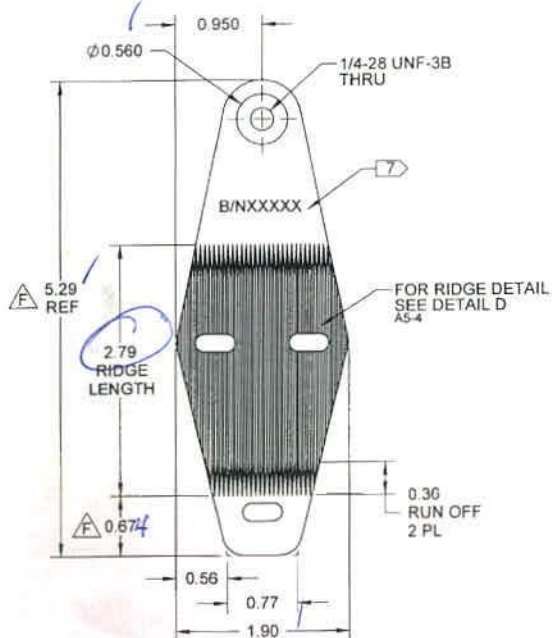
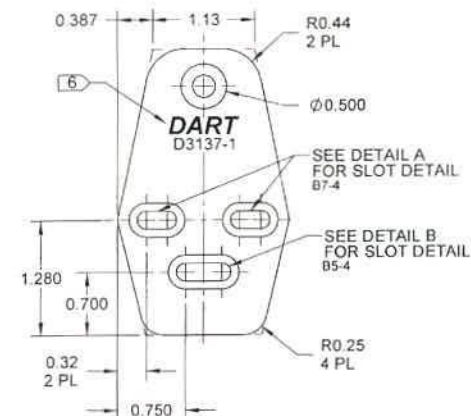
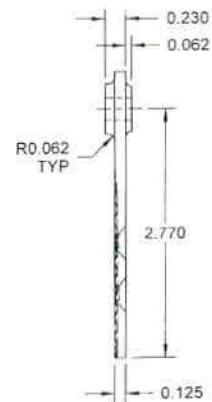
- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 0.18 lbs -041
0.32 lbs -043
0.27 lbs -045

RELEASED
08.06.26/10

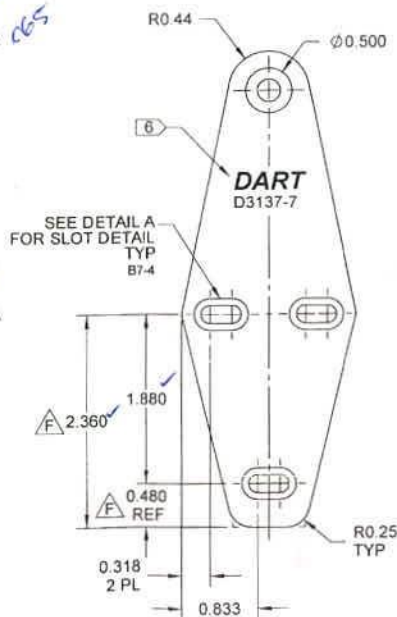
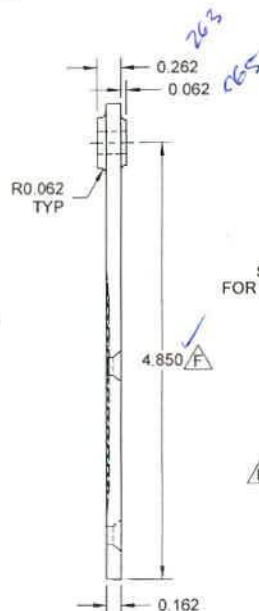
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DRAWN	AS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D3137	SHEET 2 OF 5
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D3137-1 BRACKET



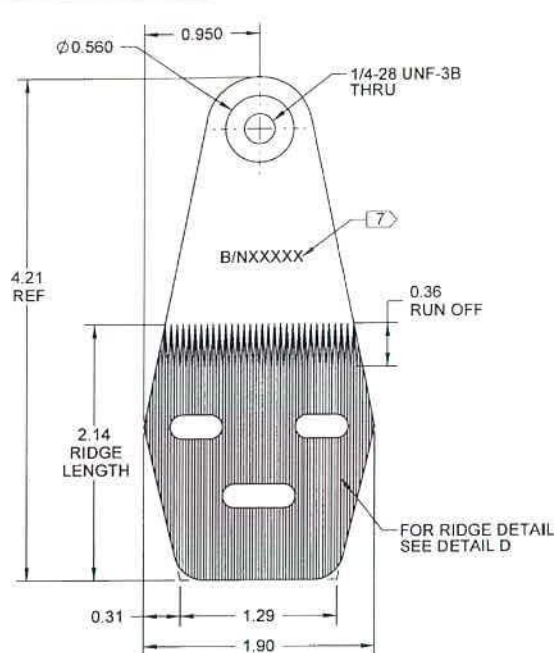
D3137-7 BRACKET



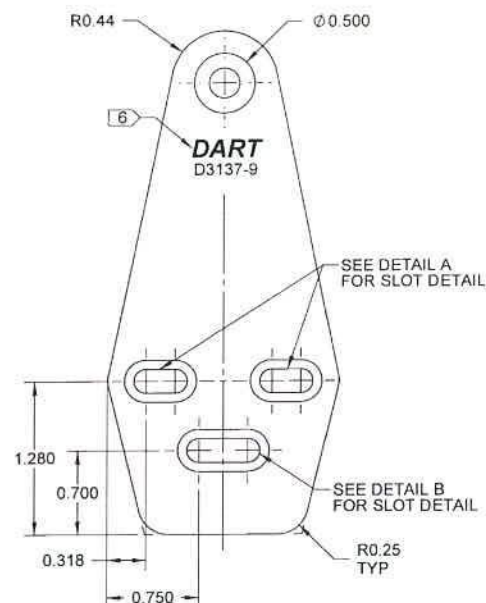
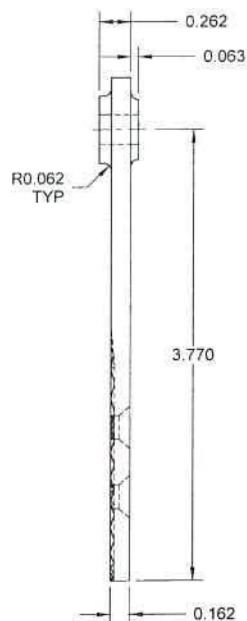
- NOTES:**
- 1) MATERIAL: -1 & -7
17-4PH STAINLESS STEEL
PER AMS 5604 OR 5643
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
PER DART SPEC. M17-4-B
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
 - 6) IDENTIFICATION: ENGRAVE DART LOGO USING 0.20 HIGH LETTERS & P/N WITH USING .15 HIGH LETTERS TO A MAX. DEPTH OF 0.010.
 - 7) SCRIBE WITH DART B/N USING VIBRATING STYLUS
 - 8) WEIGHT: SEE ASSEMBLED WEIGHT ON SHEET 2
 - 9) -1 REPLACES PREMIER P/N B30-23000-105/-106

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DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. F
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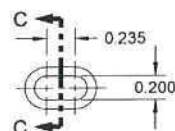


D3137-9 BRACKET

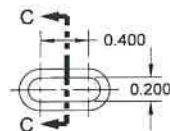


76198

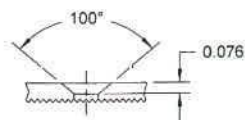
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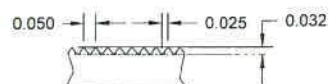
DETAIL A
(SLOT DETAIL)



DETAIL B
(SLOT DETAIL)



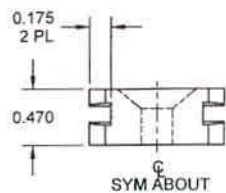
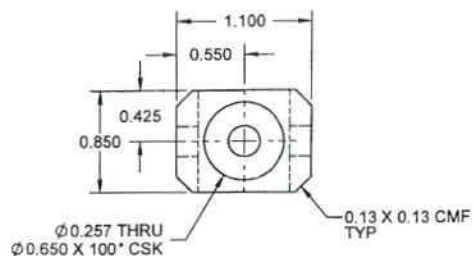
SECTION C-C
(SLOT DETAIL)



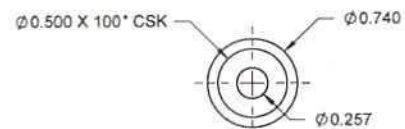
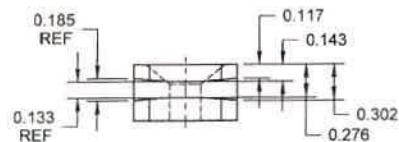
DETAIL D
SCALE 2X
(TYPICAL RIDGE DETAIL)

- NOTES:**
- 1) MATERIAL: 17-4PH STAINLESS STEEL
PER AMS 5604 OR 5643
MIN ULTIMATE TENSILE = 150 ksi
MIN YIELD TENSILE = 100 ksi
PER DART SPEC. M17-4-B
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
 - 6) IDENTIFICATION: ENGRAVE DART LOGO USING 0.20 HIGH LETTERS & P/N WITH USING .15 HIGH LETTERS TO A MAX. DEPTH OF 0.010.
 - 7) SCRIBE WITH DART B/N USING VIBRATING STYLUS
 - 8) WEIGHT: SEE ASSEMBLED WEIGHT ON SHEET 2
 - 9) REPLACES PREMIER P/N B30-23000-105/-106

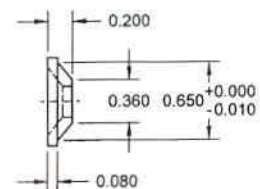
DESIGN	DS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D3137	SHEET 4 OF 5
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D3137-3 GUIDE



D3137-5 WASHER



76198

NOTES:

- 1) MATERIAL: -3
DELFIN II 150E OR ACETRON GP ACETAL, BAR
(REF DART SPEC M-DELFIN-B)
- 5
6061-T6 (OR 6061-T651/ T6510/ T6511/ T62) ALUMINUM BAR
PER-AMS-QQ-A-225/8 (OR AMS 4117/ 4128/ 4145/ 4116)
OR PER-QQ-A-200/8 (OR AMS 4160)
REF. DART SPEC M6061T6R
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 (-5 ONLY)
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.015 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: SEE ASSEMBLED WEIGHT ON SHEET 2
- 8) -3 REPLACES PREMIER P/N B30-2300-207
-5 REPLACES PREMIER P/N B30-2300-209

RELEASED
180701/10

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DRAWN	LJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. F
MFG. APPR.		D3137	SHEET 5 OF 5
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